User Manual

Introduction

The VIA VT6421 Ultra ATA 133 and SATA Combo PCI 32-bit Host Controller Card give a great flexibility to the users to have both PATA and SATA Hard disk attaching to one PCI card, and it saves one PCI slot in order to have an addition card to be inserted into the system. This is helpful when the number of expansion slots having in a system is a great concern to the users.

Features

- Support 32-bit PCI Bus Master Mode running at 33MHz
- Compliant with PCI Specification version 2.2
- Support 1 x PATA + 2 x SATA
- Totally software transparent with PATA and SATA
- Fully plug and play supported
- Windows 98SE, ME, NT4.0, 2000, XP, XP 64-bit, Vista OS supported
- Support RAID 0, 1, 0+1, JBOD

Parallel ATA interface
- Supports Ultra DMA Mode transfers up to Mode 6 timing
- Transfer rate up to 133MB/s
- 48-bit LBA mode for connecting HDD more than 137GByte
- Support PIO mode 4, 2, 1, 0
- Complies with ATA / ATAPI-6
- Support totally 2 PATA IDE drives

Serial ATA interface
- Support Serial ATA 1.0 Specification
- Transfer rate up to 1.5Gb/s
- Support totally 2 SATA devices

Before the installation of the controller card, let us make the following assumptions:

1. The end users must have the basic knowledge of installing an internal device and its driver to a PC. If they are not sure about their abilities or have any queries, please call their local dealers immediately, or find somebody who are experienced and qualified for assistance.
2. The computer has been properly installed with our supported Windows operating system

> **WARNING**
>
> Before installing and activating RAID function, please make sure you have a complete backup of your existing data from your hard drives. Manufacturer is not responsible for data loss due to abuse, misuse, or neglect. Should you have any installation problem, please contact your dealer for assistance.

Installing the controller card into the computer

1. Turn off your computer and all external devices connect to it
2. Disconnect your computer from the power sources.
3. Open the computer case. Refer to your computer user manual for more details.
4. Find an available PCI slot and remove the slot bracket. Save the bracket screw for later use.

5. Align the controller card horizontally with respect to the slot and insert it into the slot firmly and evenly. Take care not to force it into the slot. Once you have properly positioned the controller card into the slot, fasten it to the computer case with the screw you have just saved.
6. Mount the hard disk(s) on the computer case
7. Connect the power cable to the hard disk(s)
8. Connect the hard disk(s) to the controller card with the required cables
9. Secure the computer case and switch on your computer.

Hard disk LED (JP1)

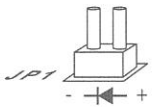

Fig 1: Hard disk LED

Setup RAID set with the hard disks installed

Caution: all data in the hard disks will be lost in the following procedures

1. Turn on the computer.
2. When the BIOS on the controller card is activated, press ***Tab*** to enter into BIOS menu.
3. Use ***Up*** and ***Down Arrow*** to select the ***Create Array*** and press ***Enter*** to confirm
4. Select the second row to choose the type RAID Array required

   RAID0=Striped; combine two hard disk into one

   RAID1=Mirrored; make a copy of one hard disk to another

   JBOD; combine two hard disk into one

   RAID0+1; need 4 hard disks attached
5. Select "**Auto Setup For Capacity"** to choose the hard disk automatically and start creating RAID set, or "**Select Disk Drives"** to choose the hard disks manually and press ***Esc*** to exit
6. If choosing the hard disks manually, select "**Start Create Process"** to create RAID set
7. Press ***Esc*** to go back to top manual
8. The information of the RAID setting is displayed in the bottom part of the screen.
9. Press ***Esc*** to exit.

Installing Windows driver for the controller card

1. Turn on the computer
2. Insert the Drivers & Utility CD into the CDROM (assuming drive D)
3. Once Windows is running, a new controller is detected.
4. Press **Cancel** to exit the **Found New Hardware Wizard**
5. Go to the **Windows Explorer** and browse to the following directory

   D:\VIA\VT642x\Windows
6. Double click on **Setup.exe** to install the driver
7. Follow instructions on the on-screen manual until the driver is fully installed

Installing software driver on Vista for the controller card

1. Turn on the computer
2. Insert the Drivers & Utility CD into the CDROM (assuming drive D)
3. Once Windows is running, a new controller is detected, and ask for its software driver
4. Choosing: **I don't have the disc. Show me other options**
5. Click on: **Browse computer for driver software (advanced)**
6. Browse to the following folder:

   D:\VIA\VT642x\Windows\VIAStor\DRIVER\Raid\winxp
7. Click **Next** to continue
8. Follow the on-screen instruction until the driver is installed completely
9. Always choose to install the driver if Vista is asking the following:

   The publisher could not be verified. Are you sure you want to install this device software?
10. Finally click on **Close** when all the components have been installed

Notice:

If the hard disks installed are blank, do not forget to set partition and format them before use

Updating the operating systems software drivers

The updated software drivers are always available for download on the following website:

http://www.drivers-download.com

Search for DL code: **DL-0311112** from **Drivers Search**

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